

## Product datasheet for **RC210177**

### **ZP4 (NM\_021186) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ZP4 (NM_021186) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ZP4
Synonyms:	ZBP; Zp-4; ZP1; ZPB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC210177 representing NM\_021186  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTGGCTGCTGCGGTGCGTTTTGCTGTGTGTTTCATTATCTCTTCTGCTGTGAGTGCCAGCATAAGCCTG  
 AGGCACCAGATTATTCCAGTGTGCTCCACTGTGGGCCGTGGAGCTTCCAGTTTGCTGTAAACCTCAACCA  
 GGAGGCAACGCTCTCCTCCTGTAATAAGCTTGGGACAACCAAGGGCTGCTGCACGAGCTGCAGAATGAC  
 TCCGACTGTGGCACCTGGATAAGAAAAGGTCCAGGCAGCTCCGTGGTGTGGAGGCAACCTATAGCAGCT  
 GCTATGCTACTGAGTGGGACTCCACTACATCATGCCAGTTGGAGTTGAAGGAGCAGGCGCGCTGAACA  
 CAAGGTGGTTACAGAGAGGAAGCTGCTCAAGTGTCTATGGATCTTCTAGCCGAGATGCTCCAGATACT  
 GACTGGTGTGACTCCATCCAGCACGGGACAGACTGCCATGTGCACCTTCACCCATCTCTCGAGGAGACT  
 GTGAAGGGCTAGGCTGTTGTTATAGCTCTGAAGAGGTGAATTCCTGCTACTATGGAACACTGTGACCTT  
 GCATTGTACCCGAGAGGGCCATTTCTCTATTGCTGTGTCTCGAACTGACCTCGCCACCCTGCTCTTG  
 GATTCTGTGCGCTTGGCCCTTAGGAATGACAGTGCCTGTAACCCCTGTGATGGCAACAAGCTTTTGTTT  
 TGTTCAGTTTCCATTTACTTCTCTGTGGCACCACAAGACAGATCACTGGAGACCGAGCAGTATATGAAAA  
 TGAAGTGGTGGCAACTAGGGATGTGAAAAATGGGAGCCGTGGCTCTGCTACTCGTACAGCATCTTCAGG  
 CTCCATGTGAGCTGCAGCTACTCAGTAAGTAGCAACTCTCTCCAATCAATGTCCAGGTTTTCACTCTCC  
 CACCACCTTTCTGAGACCCAGCCTGGACCCCTCACTCTGGAACCTCAGATTGCCAAAGATAAAAACTA  
 TGGCTCTTACTACGGTGTGGTACTACCCAGTGGTGAAGTTGCTTCGGGATCCATTTACGTGGAGGTC  
 TCCATCCTTACAGAACAGACCCCTACCTGGGGCTGCTCTACAACAGTGTGGGCAACACCCAGCACTG  
 ACCCCCTGAGTCAGCCACAGTGGCCATCCTGGTAAAGGGCTGCCCTACATTGGAGCAACTATCAGAC  
 CCAGCTGATCCCTGTCCAGAAAGCCTTGGATCTTCCATTTCCCTCTCACCACCAGCGCTTCAGCATCTTC  
 ACCTTCAGCTTTGTGAACCCTACAGTGGAGAAACAGGCCCTCAGGGGACCGGTGCATCTGCACTGCAGCG  
 TGTGAGTCTGCCAGCCTGCTGAGACACCATCCTGTGTGGTACCTGTCTGATCTCAGTCGAAGAAGAAA  
 TTTTGACAACAGTTCTCAGAACACTACTGCTAGTGTCTTAGCAAAGGCCCATGATTCTACTCCAAGCC  
 ACTAAGGACCTCCAGAAAAGCTCCGTGTTCTGTAGACTCGAAAGTTCTGTGGTGGCAGGCTTTCTG  
 GGACCTTAATCCTTGGAGCCTTGTAGTATCCTACTTGGCTGTCAAGAAACAGAAGATTGCCAGACCA  
 AATGTGTCAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC210177 representing NM\_021186  
 Red=Cloning site Green=Tags(s)

MWLLRCVLLCVSLSLAVSGQHKPEAPDYSSVLHCGPWSFQFAVNLNQEATSPPVLIAWDNQGLLHELQND  
 SDCGTWIRKPGSSVLEATYSSCYVTEWDSHYIMPVGVEGAGAAEHKVVTERKLLKCPMDLLARDAPDT  
 DWCD SIPARDRLPCAPSPI SRGDCEGLGCCYSSEEVNSCYGNTVTLHCTREGHFSIAVSRNVTSPPLLL  
 DSVRLALRND SACNPV MATQAFVLFQFPF TSCGTT RQITGDRAVYENELVATRDVKNRSRGSVTRDSIFR  
 LHVSCSYSVSSNSLPINQVFTLPPFPETQPGPLTLELQIAKDKNYGSYYGVGDYPVVKLLRDPYVEV  
 SILHRTDYPYLG LLLQQCWATPSTDPLSQPQWILVKGCPYIGDNYQTLIPVQKALDLPFSPHHQRF SIF  
 TFSFVNPTVEKQALRGPVHLHCSVSVCQPAETPSCVVTCPDL SRRRNF DNSSQNTTASVSSKGP MILLQA  
 TKDPPEKLRVPVDSKVLWVAGLSGTLILGALLVSYLAVKKQKSCPDQMCQ

**TR**TRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8114\\_c10.zip](https://cdn.origene.com/chromatograms/mk8114_c10.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**ACCN:** NM\_021186

**ORF Size:** 1620 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_021186.4](#)
**RefSeq Size:** 2474 bp

**RefSeq ORF:** 1623 bp

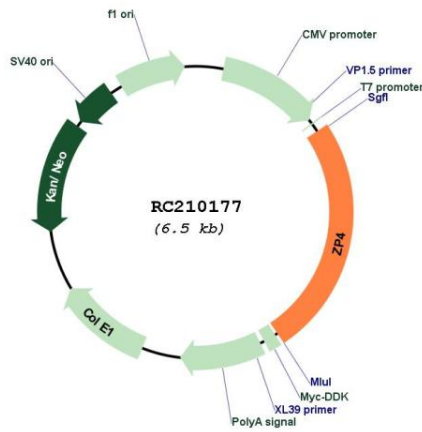
**Locus ID:** 57829

**UniProt ID:** [Q12836](#)

**Cytogenetics:** 1q43  
**Protein Families:** Secreted Protein, Transmembrane  
**MW:** 59.4 kDa

**Gene Summary:** The zona pellucida is an extracellular matrix that surrounds the oocyte and early embryo. It is composed primarily of three or four glycoproteins with various functions during fertilization and preimplantation development. The nascent protein contains a N-terminal signal peptide sequence, a conserved ZP domain, a consensus furin cleavage site, and a C-terminal transmembrane domain. It is hypothesized that furin cleavage results in release of the mature protein from the plasma membrane for subsequent incorporation into the zona pellucida matrix. However, the requirement for furin cleavage in this process remains controversial based on mouse studies. Previously, this gene has been referred to as ZP1 or ZPB and thought to have similar functions as mouse Zp1. However, a human gene with higher similarity and chromosomal synteny to mouse Zp1 has been assigned the symbol ZP1 and this gene has been assigned the symbol ZP4. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RC210177